

CLAIMS

1. An illuminator for a flat-panel display, comprising a tapered slab waveguide (1) co-extensive with the display, a light source (2-4) arranged to inject light into an edge of the waveguide so that it emerges over the face of the waveguide, and means for scanning the light injected into the wedge.
2. An illuminator according to claim 1, in which the light source consists of addressable rows of elements, and the scanning means includes a circuit for addressing these rows.
3. An illuminator according to claim 2, in which the light from the elements is collimated into the display waveguide by a cylindrical mirror (5).
4. An illuminator according to claim 2, in which the light from the elements is collimated into the display waveguide by a further waveguide (8).
5. An illuminator according to any of claims 2 to 4, in which the elements are LEDs.
6. An illuminator according to any preceding claim, further including a sheet (6) for guiding the emerging light towards the normal to the display waveguide.
7. A display comprising an illuminator according to any preceding claim, used as a backlight, and a flat-panel modulator over the display waveguide.
8. A display according to any claim 7, in which the modulator is a liquid-crystal display.

9. A display according to claims 2 and 8, in which the scanning addressing circuit is synchronized with the row addressing circuit of the LCD.